

Benchmark: Point 8528, Northing 1621955.641 & Easting 1121273.357, Cut "X" in concrete Median on IL Route 17 approximately 50' west of Existing Southbound Interstate 57 Structure 046-0007 over Illinois Route 17, Elev. 654.97

Existing Structure: None, Existing Interstate 57 is to be re-aligned. The traffic on existing Interstate 57 is to be shifted on a new alignment prior to wall construction.

Proposed Structure: The proposed wall for Ramp D will satisfy the Proposed and Future Lane Configurations for F.A.I. 57. For the Proposed Condition, F.A.I. Northbound and Southbound will consist of 2 lanes and 2 shoulders in each direction. This configuration will be constructed under this contract. At a future date, both Northbound and Southbound will be constructed to an Future Condition which will have an additional lane added. The location and height of the wall is set to accommodate both conditions. The wall shall be designed to accommodate loads for both the Proposed and Future Conditions.

No Salvage.

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge
Design Specifications, 8th Edition

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50)

HIGHWAY CLASSIFICATION

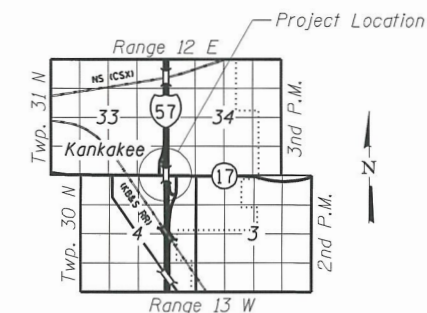
F.A.I. Route 57
Functional Class: Interstate
ADT: 28,000 (2016); 37,675 (2040)
DHV: 2,205 (2016); 2,636 (2040)
ADTT: 32% (2016); 28% (2040)
Design Speed: 75 m.p.h.
Posted Speed: 70 m.p.h.
2-Way Traffic
Directional Distribution: 49 (SB); 51 (NB)

HIGHWAY CLASSIFICATION

F.A.I. 57 Ramp D
Functional Class: Ramp
ADT: 2,150 (2016); 3,185 (2040)
DHV: 180 (2016); 248 (2040)
ADTT: 17% (2016); 17% (2040)
Design Speed: 35 m.p.h.
Posted Speed: 30 m.p.h.
1-way Traffic
Directional Distribution: 100

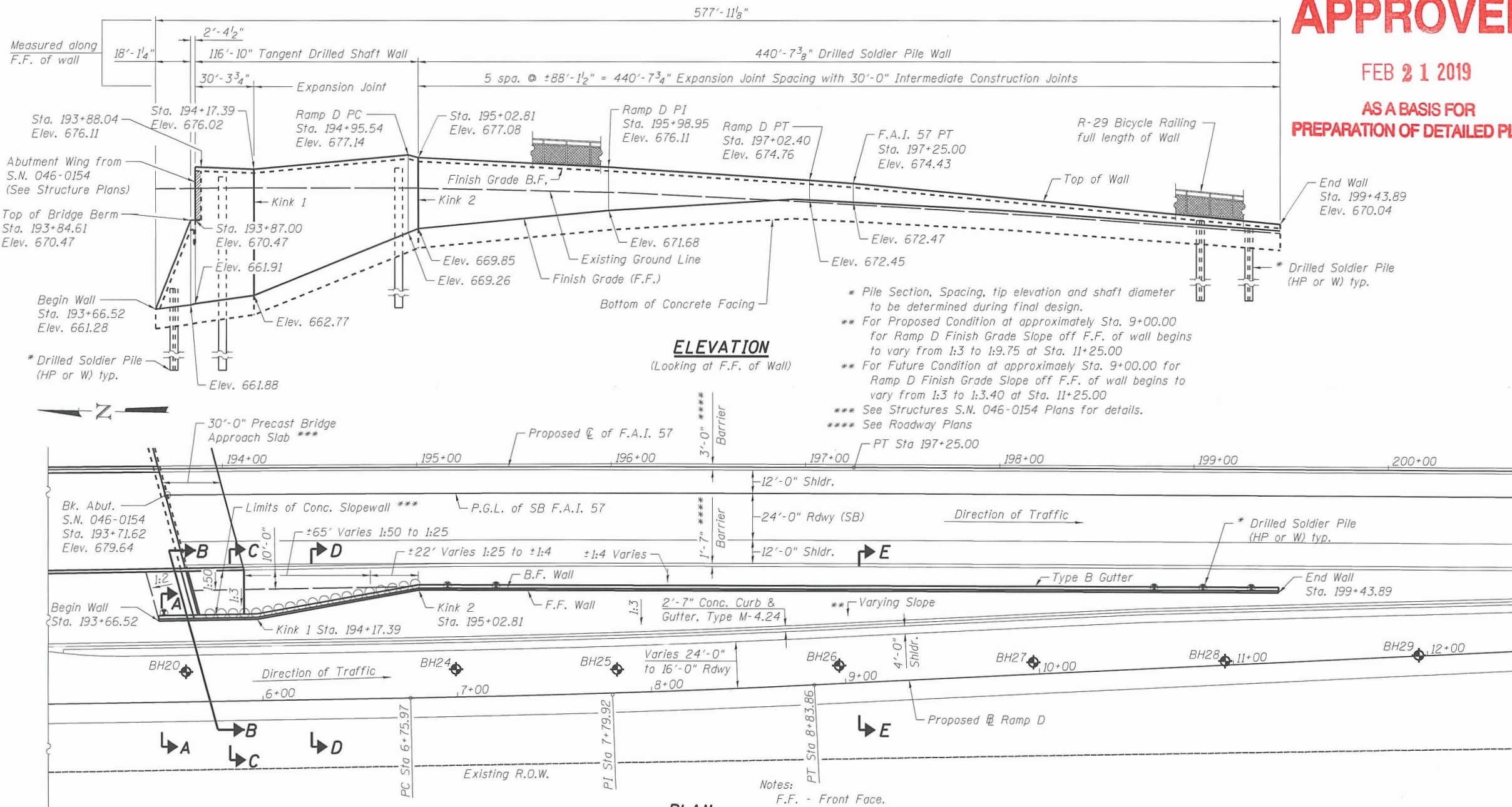
HIGHWAY CLASSIFICATION

F.A.P. Rte. 330 (Illinois Rte. 17)
Functional Class: Other Principal Arterial
ADT: 15,200 (2016); 24,500 (2040)
DHV: 1,274 (2016); 1,869 (2040)
ADTT: 11% (2016); 17% (2040)
Design Speed: 35 m.p.h.
Posted Speed: 30 m.p.h.
2-Way Traffic
Directional Distribution: 57 (SB); 43 (NB)



LOCATION SKETCH

GENERAL PLAN
RETAINING WALL AT RAMP D
(SOUTHWEST RAMP ON I-57 OVER
IL 17 AT SN 046-0154)
F.A.I. RTE. 57 - SEC. (46-3) HBK
KANKAKEE COUNTY
STATION 193+66.52 TO 199+43.89
STRUCTURE NO. 046-8805



PLAN

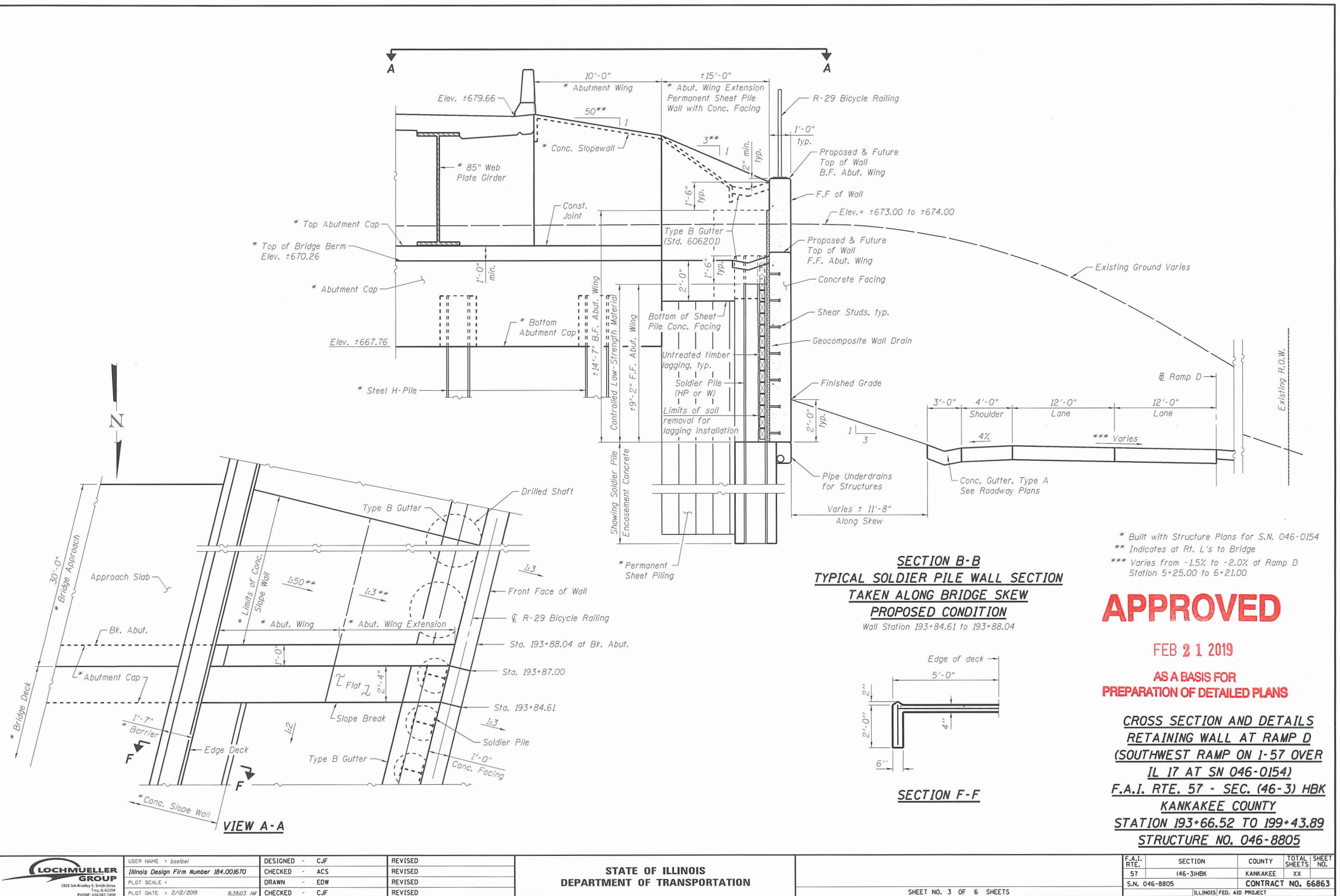
Notes:
F.F. - Front Face.
B.F. - Back Face.
For Expansion Joint Details & Wall Control Points see sheet 2 of 6.
For Section A-A see sheet 2 of 6.
For Section B-B see sheet 3 of 6.
For Section C-C see sheet 4 of 6.
For Section D-D see sheet 5 of 6.
For Section E-E see sheet 6 of 6.
Plan and Elevation views depict the lane configuration, slopes, and elevations for the Proposed Condition.
Stations taken along Proposed \mathcal{Q} F.A.I. 57. See Wall Control Point Table for Offsets sheet 2 of 6.
Plan slopes and horizontal dimensions shown on the B.F. of the wall are at Rt. L's to F.A.I. 57 unless otherwise noted.
Plan slopes and horizontal dimensions shown on the F.F. of the wall are at Rt. L's to \mathcal{Q} Ramp D unless otherwise noted.

APPROVED

FEB 21 2019

**AS A BASIS FOR
PREPARATION OF DETAILED PLANS**

 1928 S.W. Bradley R. Smith Drive Troy, IL 61294 PHONE: 618-697-1000	USER NAME = bseibel	DESIGNED - CJF	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 1 OF 6 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	Illinois Design Firm Number 184.001670	CHECKED - ACS	REVISED			57	(46-3)HBK	KANKAKEE	XX	
	PLOT SCALE =	DRAWN - EDW	REVISED			S.N. 046-8805				
	PLOT DATE = 2/12/2019 8:38:02 AM	CHECKED - CJF	REVISED			CONTRACT NO. 66863				
						ILLINOIS FED. AID PROJECT				

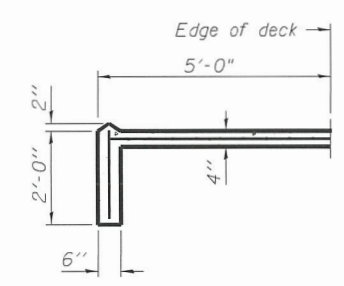


* Built with Structure Plans for S.N. 046-0154
 ** Indicates at Rt. L's to Bridge
 *** Varies from -1.5% to -2.0% at Ramp D Station 5+25.00 to 6+21.00

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**CROSS SECTION AND DETAILS
 RETAINING WALL AT RAMP D
 (SOUTHWEST RAMP ON I-57 OVER
 IL 17 AT SN 046-0154)
 F.A.I. RTE. 57 - SEC. (46-3) HBK
 KANKAKEE COUNTY
 STATION 193+66.52 TO 199+43.89
 STRUCTURE NO. 046-8805**



SECTION F-F

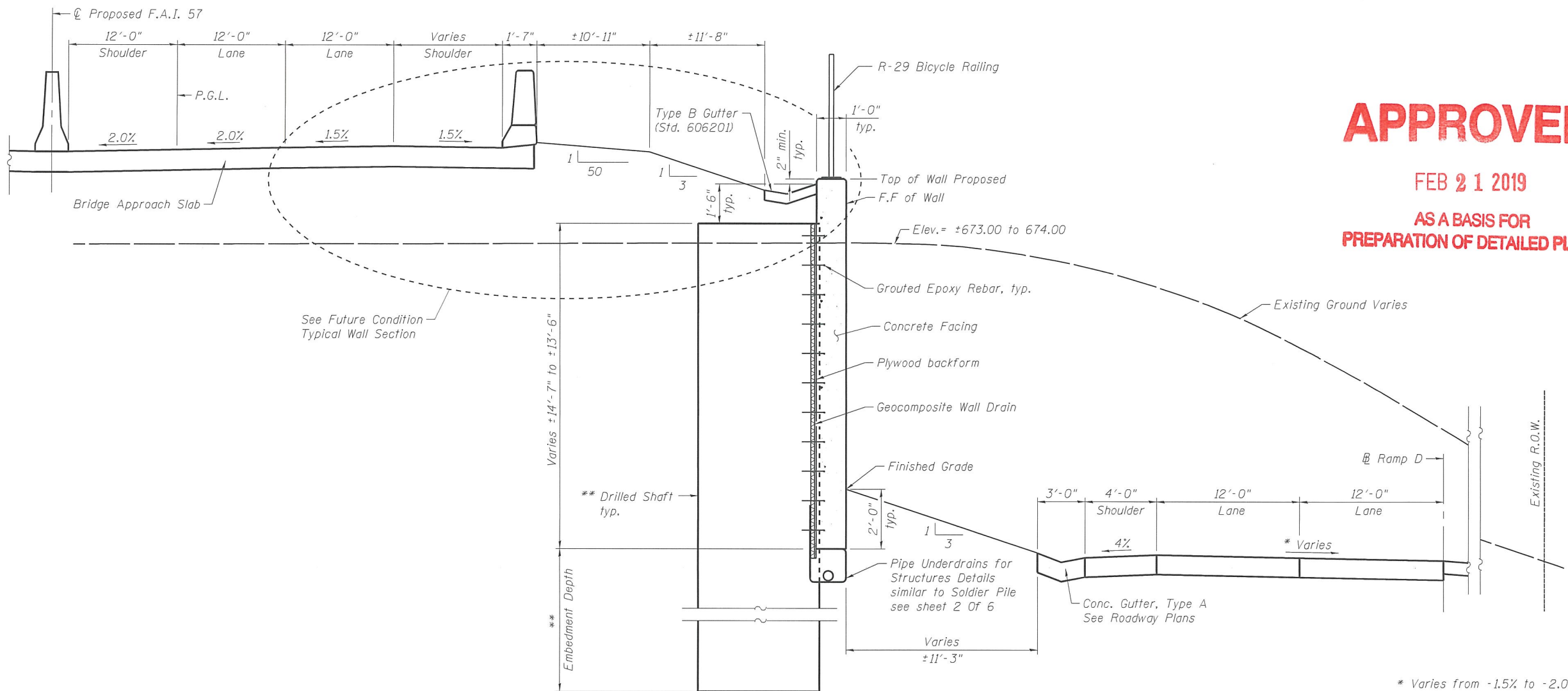
SAProj: 046-8805-01R1 1-57 SPUBRIDGE/USINT/SL Retaining Wall Ramp D/0468805-66863-003-15SL.dgn

 1928 S.A. Bradley & Smith Drive Troy, IL 62204 PHONE: 618.667.1400	USER NAME = bseibel	DESIGNED - CJF	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 3 OF 6 SHEETS	F.A.I. RTE. 57 SECTION (46-3)HBK COUNTY KANKAKEE TOTAL SHEETS XX SHEET NO. 66863 S.N. 046-8805 ILLINOIS FED. AID PROJECT
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	PLOT DATE = 2/12/2019 8:38:03 AM	CHECKED - CJF	REVISED			

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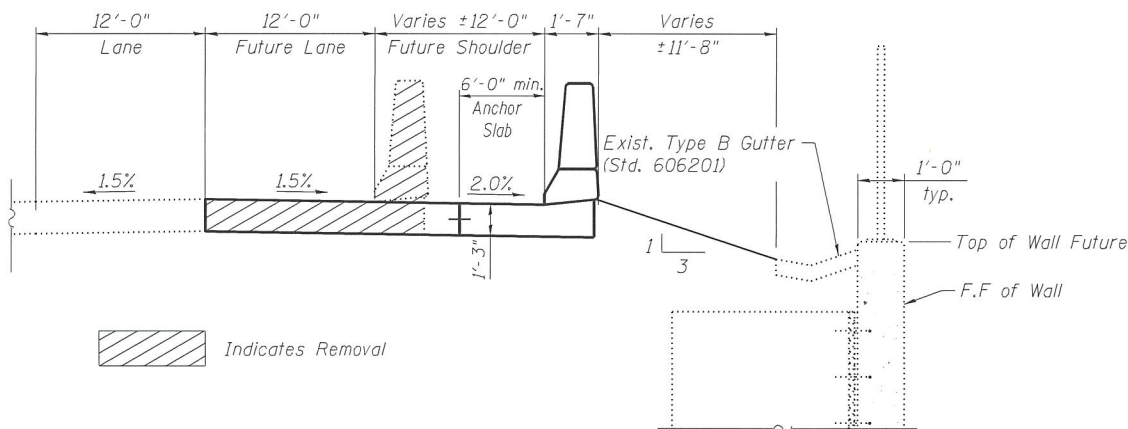
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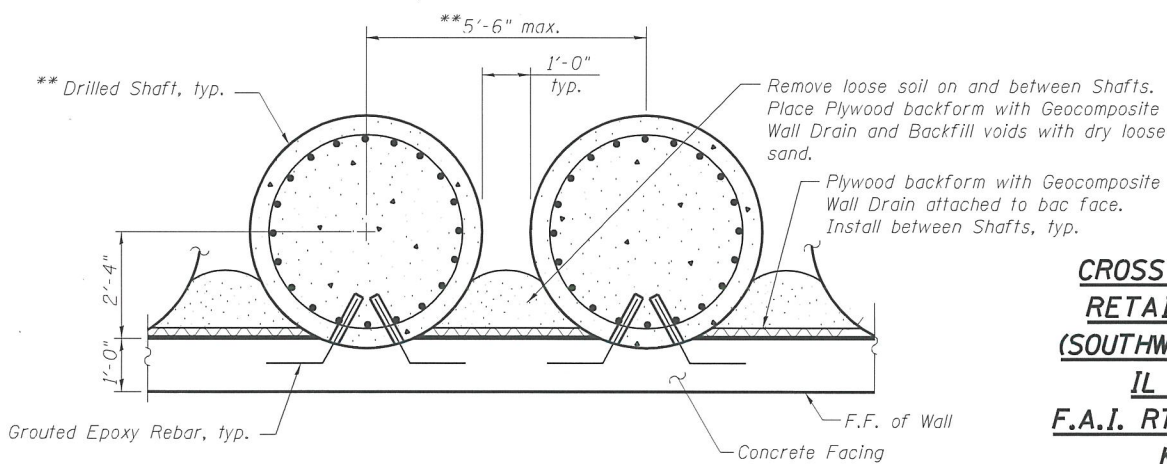


SECTION C-C
TYPICAL DRILLED SHAFT WALL SECTION
PROPOSED CONDITION
Wall Station 193+88.04 to 194+17.39
(Looking South)

* Varies from -1.5% to -2.0% at Ramp D
Station 5+25.00 to 6+21.00
** Shaft diameter, spacing, tip elevation to
be determined in final design



TYPICAL DRILLED SHAFT WALL SECTION
FUTURE CONDITION
Wall Station 193+88.04 to 194+17.39
(Looking South)



TYPICAL SECTION THRU
TANGENT PILE WALL

CROSS SECTION AND DETAILS
RETAINING WALL AT RAMP D
(SOUTHWEST RAMP ON I-57 OVER
IL 17 AT SN 046-0154)
F.A.I. RTE. 57 - SEC. (46-3) HBK
KANKAKEE COUNTY
STATION 193+66.52 TO 199+43.89
STRUCTURE NO. 046-8805

SN: 046-8805-0005-001 157 SPUR 193+88.04 to 194+17.39 Retaining Wall Ramp D0468805-6665-0047-56.dgn



USER NAME = bselbel
Illinois Design Firm Number 184.001670
PLOT SCALE =
PLOT DATE = 2/12/2019 8:38:03 AM

DESIGNED - CJF
CHECKED - ACS
DRAWN - EDW
CHECKED - CJF

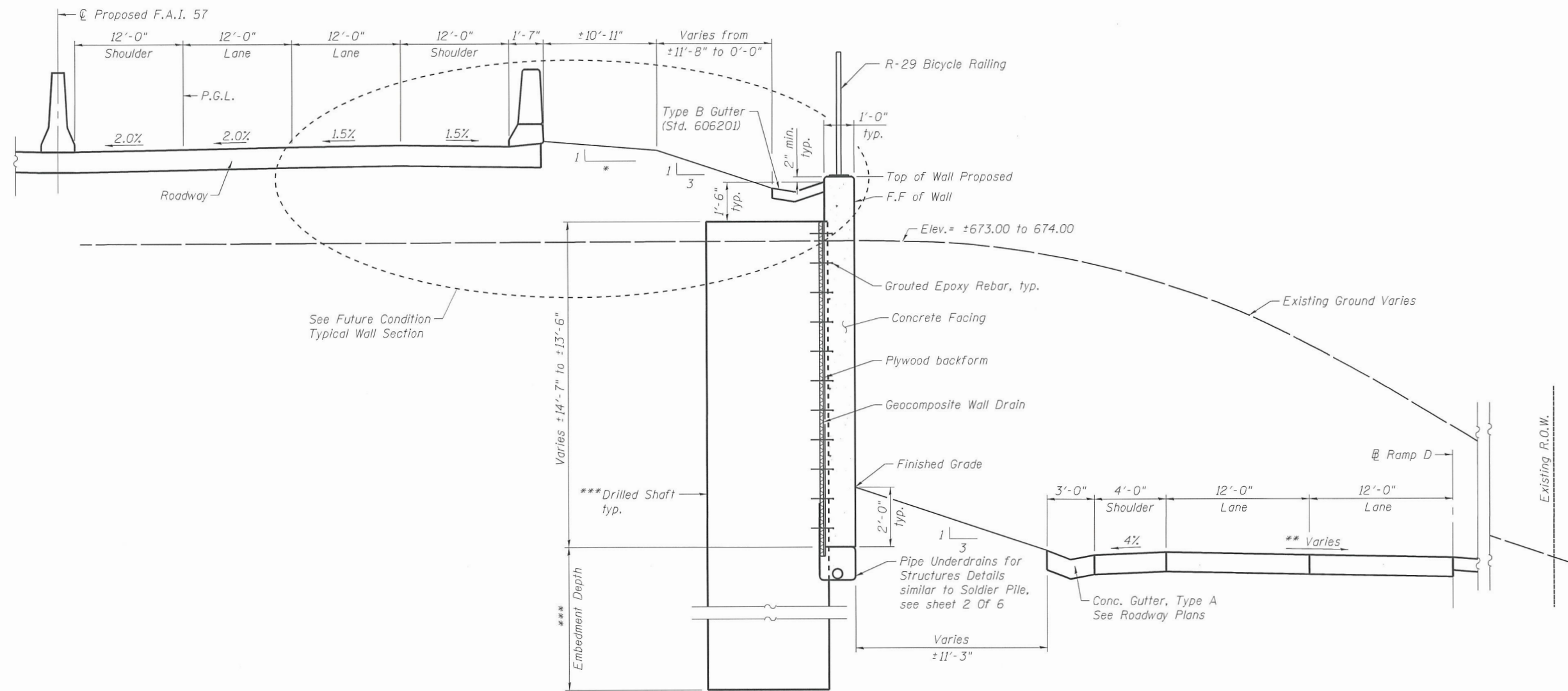
REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 4 OF 6 SHEETS

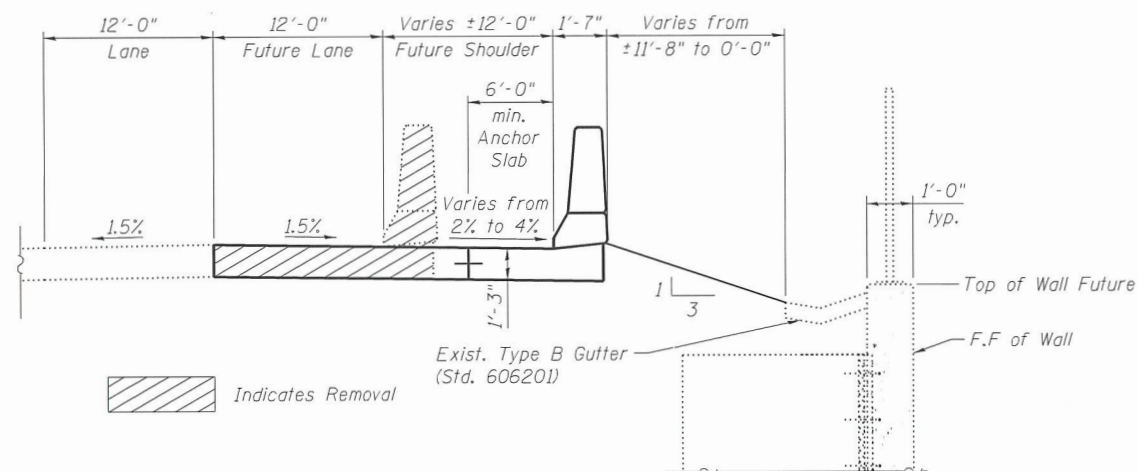
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-3)HBK	KANKAKEE	XX	
S.N. 046-8805			CONTRACT NO. 66863	

ILLINOIS FED. AID PROJECT



SECTION D-D
TYPICAL DRILLED SHAFT WALL SECTION
PROPOSED CONDITION
 Wall Station 194+17.39 to 195+02.81
 (Looking South)

* Varies from 1:50 to 1:4
 ** Varies from -1.5% to -2.0% at Ramp D
 Station 5+25.00 to 6+21.00
 *** Shaft diameter, spacing, tip elevation to
 be determined in final design
 Note: For Section thru Tangent Wall
 see sheet 4 of 6



TYPICAL DRILLED SHAFT WALL SECTION
FUTURE CONDITION
 Wall Station 194+17.39 to 195+02.81
 (Looking South)

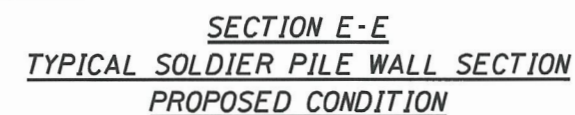
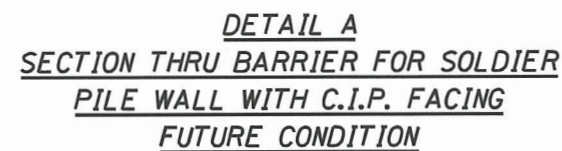
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F.A.I. RTE. 57 - SEC. (46-3) HBK
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 <div>1925 S&A Bradley & Smith Drive Troy, IL 61864 PHONE: 618.667.1400</div>	USER NAME = bseibel	DESIGNED - CJF	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 5 OF 6 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	Illinois Design Firm Number 184.001670	CHECKED - ACS	REVISED			57	(46-3)HBK	KANKAKEE	XX	
	PLOT SCALE =	DRAWN - EDW	REVISED			S.N. 046-8805		CONTRACT NO. 66863		
	PLOT DATE = 2/12/2019 8:38:04 AM	CHECKED - CJF	REVISED			ILLINOIS FED. AID PROJECT				



12'-0" Lane

12'-0" Future Lane

±12'-0" (Varies) Future Shoulder

1'-7" Wall

6'-0" min. Anchor Slab

1'-3" Concrete Slab

1.5% Slope

4% Slope

Existing Ground Line

Exist. Type B Gutter (Std. 606201) (typ.)

F.F. of Wall

See Detail A

Top of Wall Future

Indicates Removal

A

TYPICAL SOLDIER PILE WALL SECTION
FUTURE CONDITION

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**** Maximum Pavement Joint Spacing =
14'-0"

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